

Polymerisable dental compositions

YNS A1

The present invention relates to polymerisable dental compositions which contain

5        a) 10 to 98.999 wt.-% of at least one bi- or higher-functional ethylenically unsaturated monomer,  
              b) 0 to 88.999 wt.-% of at least one monofunctional ethylenically unsaturated monomer,  
              c) 0 to 5 wt.-% of an accelerator,  
10        d) 0.001 to 5 wt.-% of a redox initiator system which can trigger the radical polymerisation,  
              e) 0 to 88.999 wt.-% fillers, thixotropic auxiliaries, retarders and other auxiliaries and  
              f) 1 to 30 wt.-% of a customary plasticizer.

15        Polymerisable dental compositions are suitable in particular as filling materials, stump build-up materials, fixing cements, temporary crown and bridge materials, dental materials, modelling materials or for the preparation of inlays, onlays, facing shells and temporary crowns and bridges.

20        Depending on the intended use, thinly liquid to viscoplastic compositions are involved which can be provided with organic or inorganic fillers, and cure during polymerisation.

25        Above all, ethylenically unsaturated compounds, such as acrylic acid and/or methylacrylic acid esters, are used as monomers of the polymerisable dental compositions.

30        The temporary crown and bridge materials are normally relatively low-filled systems which contain approx. 10 to 70 wt.-% inorganic filler. The fillers used have an average particle size of 1 to 15  $\mu\text{m}$ . In addition however, much finer fillers in the range from 0.02 to 0.05  $\mu\text{m}$  are also used with the above named fillers, in order to make the materials sufficiently plastic and thixotropic. The use of organic fillers, such as e.g. polymethyl methacrylate, has also proved successful.